SAMSUNG TECHWIN

High Resolution WDR Vandal-Resistant Dome Camera

User Manual

SCV-3083

CE

SAMSUNG

High Resolution WDR Vandal-Resistant Dome Camera

User Manual

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Warranty
If the product does not operate properly in normal conditions, please let us know. Samsung Techwin will resolve the problem for free of charge. The warranty period is 3 years. However, the followings are excluded:

- If the system behaves abnormally because you run a program irrelevant to the system operation.
- Deteriorated performance or natural worn-out in process of time

❖ Design and specifications are subject to change without prior notice.

Before operating the camera, confirm the camera model and correct input power voltage.
To help you understand this manual thoroughly, we'll introduce our model description.

■ SCV-3083 SERIES

- NTSC MODEL
  SCV-3083N
- PAL MODEL
  SCV-3083P

■ MODEL DESCRIPTION

- SCV-3083X

- SIGNAL SYSTEM
  N → NTSC MODEL
  P → PAL MODEL

Safety information

CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.

This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

- To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.
- To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.

WARNING

1. Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
3. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
4. Securely plug the power cord into the power receptacle. insecure connection may cause fire.
5. When installing the camera, fasten it securely and firmly. The fall of camera may cause personal injury.

6. Do not place conductive objects (e.g. screwdrivers, coins, metal parts, etc.) or containers filled with water on top of the camera. doing so may cause personal injury due to fire, electric shock, or falling objects.
7. Do not install the unit in humid, dusty, or sooty locations. doing so may cause fire or electric shock.
8. If any unusual smells or smoke come from the unit, stop using the product. in such case, immediately disconnect the power source and contact the service center. continued use in such a condition may cause fire or electric shock.
9. If this product fails to operate normally, contact the nearest service center. never disassemble or modify this product in any way. (samsung is not liable for problems caused by unauthorized modifications or attempted repair.)
10. When cleaning, do not spray water directly onto parts of the product. doing so may cause fire or electric shock.

CAUTION

1. Do not drop objects on the product or apply strong shock to it. Keep away from a location subject to excessive vibrationor magnetic interference.
2. Do not install in a location subject to high temperature (over 55°C), low temperature (below -10°C), or high humidity. Doing so may cause fire or electric shock.
3. If you want to relocate the already installed product, be sure to turn off the power and then move or reinstall it.
4. Remove the power plug from the outlet when then there is a lightning. Neglecting to do so may cause fire or damage to the product.
5. Keep out of direct sunlight and heat radiation sources. It may cause fire.
6. Install it in a place with good ventilation.
7. Avoid aiming the camera directly towards extremely bright objects such as sun, as this may damage the CCD image sensor.
8. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
9. The Mains plug is used as a disconnect device and shall stay readily operable at any time.
10. Do not expose the camera to radioactivity. Radioactivity exposure may damage the CCD.

Safety information

FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions :

1) This device may not cause harmful interference, and
2) This device must accept any interference received including interference that may cause undesired operation.

CAUTION

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

IC Compliance Notice

This Class A digital apparatus meets all requirements of the Canadian Interference.-Causing Equipment Regulations of ICES-003.

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems.)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.

13. Unplug this apparatus when a card is used. Use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as powersupply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus

15. This product is intended to be supplied by a Listed Power Supply Unit marked "Class 2" and rated from 24Vac, 50 or 60 Hz / 12Vdc, min. 0.35A

Samsung Techwin cares for the environment at all product manufacturing stages to preserve the environment, and is taking a number of steps to provide customers with more environment-friendly products.The Eco mark represents Samsung Techwin's will to create environment-friendly products, and indicates that the product satisfies the EU RoHS Directive.

Contents

INTRODUCTION 9

9 Features
10 What's included
11 Component names and Functions

INSTALLATION 12

12 Installation
14 Adjust the monitoring direction of the camera

CONNECTION 15

15 Connecting to Monitor
15 Connecting to Power
16 Using coaxial communications

SETUP 18

18 Menu Configration
18 Menu Setup

TROUBLESHOOTING 34

34 Troubleshooting

SPECIFICATIONS 35

35 Specifications
37 Dimension

FEATURES

- **High Resolution**
  By adopting a diagonal 6mm (1/3") 520,000 pixel (NTSC), 610,000 pixel (PAL) SONY CCD, the camera produces clear picture quality with a horizontal resolution of max 700 TV lines(665TVL±5%) for color ER mode and 700 TV lines for BW.

- **Excellent Sensitivity**
  The built-in high sensitivity COLOR CCD produces a clear image.
  - Color : 0.3 Lux (50IRE, @F1.2), 0.0006LUX (SENS-UP, x512)
  - B/W : 0.01 Lux (50IRE, @F1.2), 0.00002 LUX (SENS-UP, x512)

- **SSNR3 (Samsung Super Noise Reduction) Function**
  The high-performance SV-V DSP chip effectively removes low-light gain noise and afterimage to provide clear images even in dark environments.

- **Day & Night**
  This camera has a function that automatically selects the mode that is appropriate for daytime or night-time conditions. The COLOR mode operates in daytime conditions to provide optimum colors, and B/W mode operates in night-time conditions to enhance the definition of the image.

- **Intelligence**
  Without assistance from an external sensor, this camera independently detects and traces objects while examining stillness and movement to activate the alarm.

- **SSDR (Samsung Super Dynamic Range)**
  For images with high contrast between bright and dark areas from difficult lighting conditions such as backlighting, this camera selectively illuminates darker areas while retaining the same light level for brighter areas to even out the overall brightness.

- **Miscellaneous Functions**
  HLC (High Light Compensation), SENS-UP, REVERSE, D-ZOOM, SHARPNESS and PRIVACY functions are provided.

- **Communication**
  Coaxial communication methods are supported.
  - Protocol : Pelco Coaxitron

- **OSD**
  The camera control is convenient by using 17 different foreign language O.S.D.
  - NTSC : English, Japanese, Spanish, French, Portuguese,Korean
  - PAL : English, French, German, Spanish, Italian, Chinese, Russian, Polish, Czech, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese

- **WDR**
  By adopting a proprietary SV-V DSP chip, the camera delivers clear, high quality pictures even when the scene is backlight, by increasing exposure in dark areas while decreasing it in bright areas; a corrected image with clear details results.

- **VPS(Virtual Progressive Scan)**
  Adopting Samsung's unique development, the VPS(Virtual Progressive Scan) enhances the sharpness of moving subject's outline. The VPS enables elective output in progressive mode using the existing interlaced input and effectively enhances the sharpness of captured pictures from video and still images. The function effectively removes blurred outline problems resulting in excellent road monitoring and improved license plate recognition.

- **DIS (Digital Image Stabilizer)**
  The DIS function compensates for any camera movement, to produce more stable pictures.

WHAT'S INCLUDED

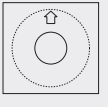
Check if the following items are included in the product package.

Camera

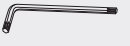
Quick Manual

Tapping Screw 3EA

Video Output Cable

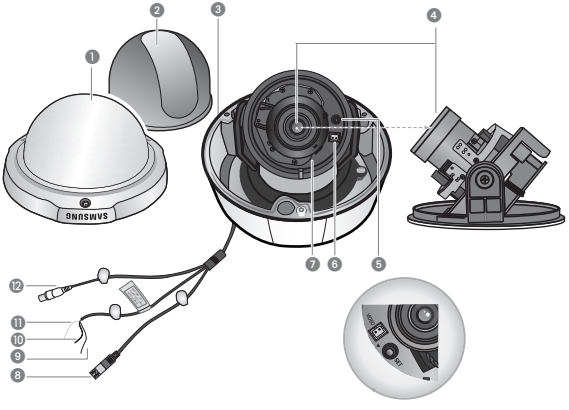


Template



Wrench

COMPONENT NAMES AND FUNCTIONS

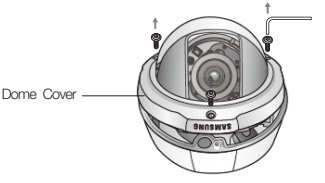


1. **Dome Cover** 2. **Shield Case**
3. **Pan Base** : control panning angle of camera
4. **2.8 Vari-focal Lens Module 3 ~ 8.5mm (F1.2)**
5. **Function Setup Switch** : Display the OSD menu and move the cursor up, down, left, and right amend or confirm changes.
   When menu is off, move this switch left(NEAR) or right(FAR) for adjusting focus. move this switch up(TELE) or down(WIDE) for adjusting zoom. Short to press this button to fit the focus automatically.
6. **Video Output Terminal to Monitor**
7. **Rotate Base** : control rotating angle of camera.
8. **Power Input Connector**
9. **Ground Terminal**
10. **D & N Input Terminal :** You can switch to Day & Night Mode by connecting an external signal to this terminal.
11. **MD Output Terminal:** Motion detection signals are output through this terminal.
12. **Video Output Jack**

▪ Be sure to connect the Day & Night input terminal to GND when using an external input.

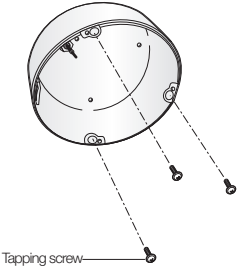
DISASSEMBLING

Using the L-wrench provided, loosen 3 screws by turning them counterclockwise and separate the dome cover.

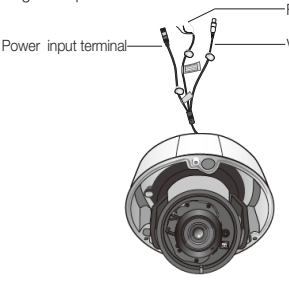


INSTALLING THE CAMERA ON A CEILING OR WALL

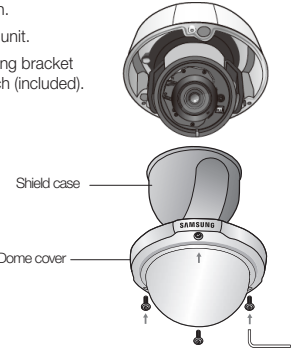
1. Drill holes on the ceiling by matching to the holes on the case bed, and insert plastic anchors (HUD 5) (not included) fully into the holes. Fix the case bed on the ceiling by using Tapping screws (TH M4 x L30). (3 places)



2. Connect Power and video cables and arrange them through the hole you want to pass when mounting the main body on the mounting bracket, note that not to damage or squeeze the cables.

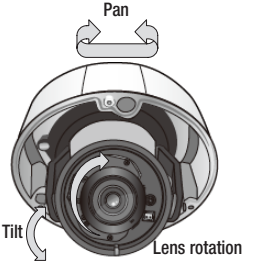


3. Adjust the lens in a desired direction.
4. Secure the Shield case to the main unit.
5. Assemble the camera on its mounting bracket with the three screws using L Wrench (included).



- The installation should be done by qualified service personnel or system installers.
- If the ceiling material is not strong enough to hold the installation screws, the camera may fall off. Reinforce the ceiling as needed.

Adjusting the monitoring direction for the camera



▪ Adjusting the monitoring direction

You can adjust the camera direction only when the camera is fixed on the ceiling. Where, rotating the camera unit to the left or right is called Pan, adjusting the tilt is called Tilt, and turning the lens on its axis is called Rotation.

- The effective range of pan is a total of 352 degrees.
- The effective range of rotation is a total of 348 degrees.
- The effective range of tilt is a total of 73 degrees.

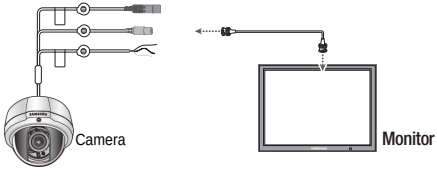
- The image can be covered up by the camera case depending on the angle.
- Do not forcefully turn the focus/zoom lens after the dome case is disassembled. Otherwise, it may cause an incorrect focus due to a motor failure.

▪ Methods of adjustment

1. After installing the camera, adjust the panning angle in consideration of the monitoring direction.
2. Set the horizontal angle so that the image is not reversed.
3. Adjust the tilt angle so that the camera faces toward the monitoring object.

CONNECTING TO MONITOR

Connect the Video OUT port on the rear panel of the camera to a monitor.



- As the connecting method varies with the instruments, refer to the manual supplied with the instrument.
- Only connect the cable when the power is turned off.

CONNECTING TO POWER

Since power specifications differ depending on the model, make sure to check your model name and specifications before connecting power.

You can connect power as shown in the following figure.

When the resistance value of copper wire is at [20°C(68°F)]

Copper wire size (AWG)	#28 (0.08mm²)	#26 (0.13mm²)	#24 (0.22mm²)	#22 (0.33mm²)	#20 (0.52mm²)	#18 (0.83mm²)
Resistance (Ω/m)	0.213	0.134	0.078	0.050	0.030	0.018
Voltage Drop (V/m)	0.077	0.048	0.028	0.018	0.011	0.006

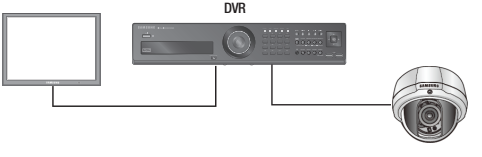
- As shown in the table above, voltage decreases as the wire gets longer. Therefore use of an excessively long adaptor output line for connection to the camera may affect the performance of the camera.
  - * Standard voltage for camera operation : DC 12V ±10%, AC 24V ±10%
  - * There may be some deviation in voltage drop depending on the type of wire and the manufacturer.

- Be sure to connect power only after all the installation is complete.
- Note that AC / DC adaptor is not supplied with camera.
- Ground should be connected to the GND terminal.

Using coaxial communications

- Coaxial Communications System
- OSD Control method
- If you set the sensitivity level of the sub menu item (of COAX) to “Low”, you have to press the MENU/ENTER (OSD KEY) button twice in a row to access the OSD menu. (To prevent an error by noise from the DVR)

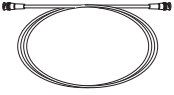
CAMERA	DVR	CONTROLLER
SET	MENU/ENTER	OSD KEY
UP	UP KEY	JOYSTICK UP
DOWN	DOWN KEY	JOYSTICK DOWN
LEFT	LEFT KEY	JOYSTICK LEFT
RIGHT	RIGHT KEY	JOYSTICK RIGHT



• — : BNC

- Video Cable

The camera's video output port is connected to the monitor with a BNC coaxial cable, shown below : If the distance between the camera and the monitor exceeds the recommended maximum, please use an auxiliary video amp.



Distance	Recommended Cable Specification
300m	3C2V(RG-59/U)
450m	5C2V(RG-6/U)
600m	7C2V(RG-11/U)

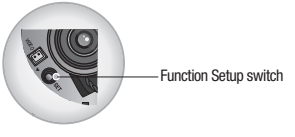
- It is recommended that pure copper coax cable is used and not copper coated steel, as this will cause issues with the communication over the coaxial cable.
- To ensure picture quality, only single-channel video output connector can be used while camera connected to other video equipments.

MENU CONFIGRATION

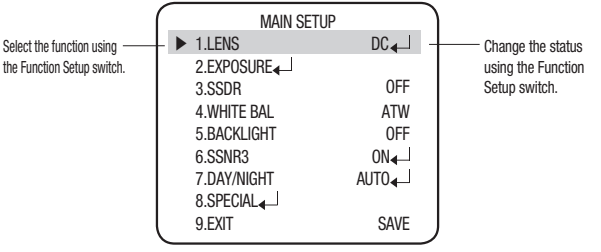
MAIN SETUP			
LENS	● DC		
EXPOSURE	● BRIGHTNESS ● SENS-UP	● SHUTTER ● RETURN	● AGC
SSDR	● OFF	● ON	
WHITE BAL	● ATW ● MANUAL	● OUTDOOR ● AWC→SET	● INDOOR
BACKLIGHT	● OFF ● WDR	● USER BLC	● HLC
SSNR3	● ON	● OFF	
DAY/NIGHT	● AUTO ● B/W	● EXTERN	● COLOR
SPECIAL	● IMAGE ADJ ● INTELLIGENCE ● PROFILE	● CAM TITLE ● PRIVACY ● COAX	● SYNC ● DIS ● RETURN
EXIT	● SAVE	● NOT SAVE	● RESET

MENU SETUP

Use the Function Setup switch within the camera.



1. Press the Function Setup switch.
   - Main setup menu is displayed on the monitor screen.



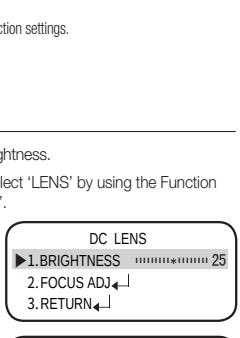
2. Select a desired function using the Function Setup switch.
   - Place the cursor over a desired item.
3. Set up a selected item by using the Function Setup switch.
4. To finish the setting, select 'EXIT' and press the Function Setup switch.

- An item with the ↵ icon also has sub menus. To select a sub menu, select an item with the icon and press the Function Setup switch.
- An item with the - - - icon is unavailable due to function settings.

LENS

Using this function, you can control the screen brightness.

1. When the SETUP menu screen is displayed, select 'LENS' by using the Function Setup switch so that the arrow indicates 'LENS'.
2. DC : You can adjust the minimum shutter and maximum value of ESC shutter mode.
3. The Lens mode has sub menu items as listed below.
   - Brightness : Adjusts the video brightness.
   - FOCUS ADJ : To adjust the DC lens focus correctly, you must activate the Focus Settings mode under each lens menu. Activate the Focus Settings mode, adjust the lens focus, and then deactivate the settings mode.

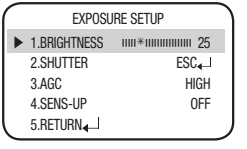


- SIMPLE FOCUS : Select this to fit the focus automatically.
- AFTER D/N : After D or N is switched, select whether to use the focus readjustment function.
- RETURN : Select this to save the changes in the FOCUS ADJ menu and return to the DC LENS menu.

• RETURN : Select this to save the changes in the DC LENS menu and return to the SETUP menu.

EXPOSURE

1. When the SETUP menu screen is displayed, select EXPOSURE by using the Function Setup switch so that the arrow indicates 'EXPOSURE'.
2. Select a desired mode using the Function Setup switch.



- BRIGHTNESS : Adjusts the video brightness.
- SHUTTER : You can select the shutter.
  - ESC : Select this to control the shutter speed automatically. If ESC is selected, the shutter speed is automatically controlled depending on the ambient illumination of the subject.Shutter speed will change between MIN and MAX by setting.
    • MIN : 1/50~1/60000
    • MAX : 1/00~1/20000
  - MANUAL : You can control shutter speed manually. (NTSC MODEL - 1/60sec~1/120,000sec, PAL MODEL - 1/50sec~1/120,000sec)
  - A.FLK : Select this when you experience picture flicker, this happen when there is a clash with the installed lighting frequency.
  - --- : Shutter speed is fixed.

▪ When the SHUTTER is set to ESC after selecting the Internal Synchronization Type, the picture may become unstable if the camera faces a bright fluorescent light. Therefore, take care when choosing the installation position.

▪ When the SHUTTER is set to MANUAL or A.FLK mode, SENS-UP will be disabled.

▪ Set the shutter mode to --- if color rolling occurs.

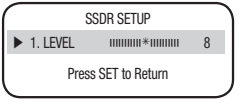
- **AGC(AUTO GAIN CONTROL) :** The higher the gain level, the brighter the screen - but the greater the noise.
  - HIGH : Allows automatic gain control from 5.3dB to 42dB.
  - OFF : Deactivates the AGC function.
  - LOW : Allows automatic gain control from 5.3dB to 32dB.
- **SENS-UP :** When it is night or dark, the camera automatically detects the light level and maintains a clear picture if this mode is activated.
  - OFF : Deactivates the SENS-UP function.
  - AUTO : Activates the SENS-UP function.
- **RETURN :** Return to the SETUP menu.

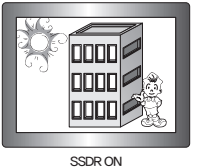
- If you press the Function Setup switch in 'AUTO' mode, You can adjust brightness by adjusting the SENS-UP level. (x2 ~ x512)
- Note that the higher the SENS-UP level, the brighter the screen, but the more likely it is that an after-image will appear.
- It is normal for Noise, Spots and Whitish symptoms to appear in SENS-UP mode when the D-ZOOM level is increased.

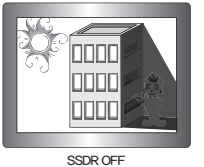
SSDR (Samsung Super Dynamic Range) :

SSDR illuminates darker areas of an image while retaining the same light level for brighter areas to even out the overall brightness of images with high contrast between bright and dark areas.

1. When the SETUP menu screen is displayed, select SSDR by using the Function Setup switch so that the arrow indicates 'SSDR'.
   - **OFF :** Deactivates the SSDR function.
   - **ON :** Activates the SSDR function.
     - Use the Function Setup button to change the SSDR level in the sub menu according to the contrast between bright and dark areas.




SSDR ON


SSDR OFF

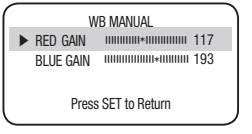
WHITE BAL (WHITE BALANCE)

Use the White Balance function to adjust the screen color.

1. When the SETUP menu screen is displayed, select 'White Bal' by using the Function Setup switch so that the arrow indicates 'White Bal'.
2. Select a desired mode using the Function Setup switch.

※ Select one of the following 5 modes, as appropriate for your purpose.

- **ATW :** Select this when the color temperature is between 2,400°K and 10,500°K.
- **OUTDOOR :** Select this when the color temperature is between 1,700°K and 11,000°K. (sodium light inclusion) Select this When the color temperature of environment surrounding the subject is out of the control range (e.g. clear sky, or sunset)
- **INDOOR :** Select this when the color temperature is between 4,500°K and 8,500°K.
- **MANUAL** : Select this to fine-tune White Balance manually. Set White Balance first by using the ATW or AWC mode. After that switch to MANUAL mode, fine-tune the White Balance and then press the Function Setup switch.



- **AWC→SET** : To find the optimal luminance level for the current environment, point the camera towards a sheet of white paper and press the Function Setup switch. If the environment changes, readjust it.

▪ White Balance may not work properly under the following conditions.In this case select the AWC mode.

1. When the color temperature of the environment surrounding the subject is out of the control range (e.g. clear sky or sunset).
2. When the ambient illumination of the subject is dim.
3. If the camera is directed towards a fluorescent light or is installed in a place where illumination changes dramatically, the White Balance operation may become unstable.

BACKLIGHT

The camea is designed so that it delivers a distinctive subject and background at the same time, even when the subject is in backlight, by adopting a function of the proprietary SV-V DSP chip.

1. When the SETUP menu screen is displayed, select 'BACKLIGHT' by using the Function Setup button. so that the arrow indicates 'BACKLIGHT'.
2. Select a desired mode using the Function Setup button depending on the camera purpose.

- **OFF :** Not being used
- **USER BLC :** Enables a user to select a desired area on a picture and view that area more clearly.
  - LEVEL : Adjusts the brightness level of a monitoring area.
  - TOP/BOTTOM/LEFT/RIGHT : Adjust the area to be enhanced.

BLC SETUP

▶ 1. LEVEL		MIDDLE
2. TOP		30
3. BOTTOM		100
4. LEFT		75
5. RIGHT		140
6. RETURN		

- **HLC (High Light Compensation) :** This function masks the strong light to minimize white out due to over exposure and preserve much of the on-screen details when the camera aims a strong light source.
  - LEVEL : Adjusts the brightness level of a monitoring area.
  - LIMIT : Enable to change the operating condition.
  - MASK COLOR/TONE : Change the color / brightness of the masking area. (Black, Red, Blue, Cyan, Magenta)
  - TOP/BOTTOM/LEFT/RIGHT : Adjust the area to be enhanced.

HLC SETUP

▶ 1. LEVEL		MIDDLE
2. LIMIT		NIGHT ONLY
3. MASK COLOR		BLACK
4. MASK TONE		5
5. TOP		10
6. BOTTOM		120
7. LEFT		10
8. RIGHT		210
9. RETURN		

- **WDR :** When there are both bright and dark areas at the same time, this mode makes both areas distinctive.
  - LIMIT : Adjust the WDR Sensitivity by selecting LOW, MIDDLE, or HIGH.
  - LEVEL : Adjust the WDR Brightness by controlling the bar from 1 to 10.
  - MODE : Indoor and outdoor backlight conditions are appropriately selected.
  - ANTI ROLLING : Rolling caused around a fluorescent lamp is improved.

WDR SETUP

▶ 1. LIMIT		MIDDLE
2. LEVEL		5
3. MODE		INDOOR
4. ANTI ROLLING		OFF
5. RETURN		

WDR ON

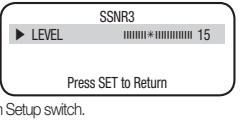
WDR OFF

- Because there can be a difference in the effectiveness of HLC according to the amount of light area in the screen, optimize the installation angle for the best HLC performance.
- In a dark environment, the HLC is only activated when a high light that is larger than a certain area is present.
- The HLC is not activated in day light or when bright light is not present at night. (In NIGHT ONLY mode).
- Since the performance of the WDR function may be affected by the area of the bright part of the screen, optimize the installation angle for the best WDR performance.
- If you increase LIMIT, the screen display may be distorted.
- If you use the VPS (Virtual Progressive Scan) function, the CCD reads differently so you can not use WDR simultaneously. If you set VPS to ON, WDR will be automatically set to FIXED Mode.

SSNR3

This function reduces the background noise in a low luminance environment.

1. When the SETUP menu screen is displayed, select 'SSNR3' by using the Function Setup switch so that the arrow indicates 'SSNR3'.
2. Select a desired mode using the Function Setup switch.
   - **OFF** : Deactivates SSNR3. Noise is not reduced.
   - **ON** : Activates SSNR3 so that noise is reduced.



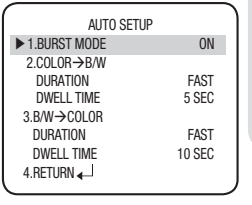
3. Set the SSNR3 mode to 'ON' and press the Function Setup switch.
4. Then you can adjust the noise reduction level.

- You cannot set the SSNR3 to 'ON' or 'OFF' when the AGC mode of the EXPOSURE menu is 'OFF'.
- When adjusting the noise reduction level of the SSNR3 mode, remember that the higher the level set, the more the noise level will be reduced but that after image may also occur.

DAY/ NIGHT

You can display pictures in color or black and white.

1. When the SETUP menu screen is displayed, select 'DAY/NIGHT' by using the Up and Down buttons so that the arrow indicates 'DAY/NIGHT'.
2. Select a desired mode using the Left and Right buttons according to the picture display you want.
   - **AUTO** : The mode is switched to 'Color' in a normal environment, but switches to 'B/W' mode when ambient illumination is low. To set up the switching time for AUTO mode, press the Function Setup switch. You can turn on or off the burst signal on B/W mode.
     - BURST MODE : You can turn on or off the burst signal on B/W mode.
     - DURATION : You can select the brightness level at which the camera switches from day to night mode.
     - DWELL TIME : You can select the duration time about changing the day/night mode. →3s, 5s, 7s, 10s, 15s, 20s, 30s, 40s, 60s

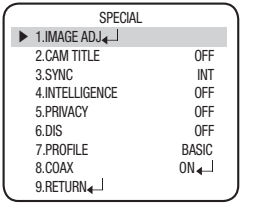


   - **EXTERN :** Ground to the grounding terminal to allow automatic switching between COLOR and B/W.
   - **COLOR** : The picture is always displayed in color.
   - **B/W** : The picture is always displayed in black and white. You can turn on or off the burst mode on B/W mode.

- When AGC in the EXPOSURE menu is set to OFF, AUTO mode is not available to select.
- When using an external input, Connect the D & N Input Port to the Ground Terminal.

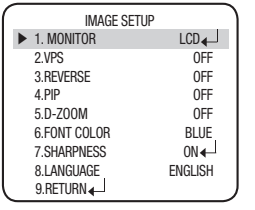
SPECIAL

1. When the SETUP menu screen is displayed, select 'SPECIAL' by using the Function Setup switch so that the arrow indicates 'SPECIAL'.
2. Select a desired mode using the Function Setup switch.

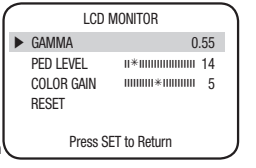


- **IMAGE ADJ :**

  1) When the SPECIAL menu screen is displayed, select 'IMAGE ADJ' by using the Function Setup switch so that the arrow indicates 'IMAGE ADJ'.
  2) Select a desired mode using the Function Setup switch.

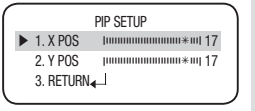


  - **Monitor** : Please change the settings value of video appropriate to your monitor.
    - LCD : Please select this menu item when using an LCD monitor. You can change the gamma, PED level and color gain in the sub menus.
    - CRT : Please select this menu item when using a CRT monitor. You can change the PED level, color gain in the sub menus.

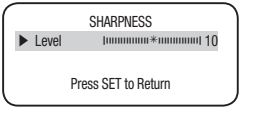


    - USER : Please use this menu item when using a monitor other than standard ones. You can change the gamma, PED level and color gain in the sub menus.

- VPS(Virtual Progressive Scan) :
  This is an advanced technology that reproduces a sharp progressive image. This is appropriate to high quality recording and file transfer via the Internet.
  - OFF : Selects 2:1 Interlaced Scan as the Imaging Method.
  - ON : Selects Progressive Scan as the Imaging Method.
- REVERSE : You can reverse the picture.
  - OFF : You don't reverse the picture.
  - H-REV : You can flip the picture horizontally on the screen.
  - V-REV : You can flip the picture vertically on the screen.
  - HV-REV : You can flip the picture horizontally and vertically on the screen.
- PIP(Picture in Picture) : Displays a full-size image along with the thumbnail to provide more detailed information. The position of the thumbnail is adjustable.



- D-ZOOM : You can use a digital zoom of x1 ~ x16.
- FONT COLOR : You can change the OSD font color. (White, Yellow, Green, Red, Blue)
- SHARPNESS : As you increase this value, the picture outline becomes stronger and clearer. Adjust this value appropriately depending on the sharpness of the picture.



  - OFF: Turn off Sharpness function.
  - ON : The higher the level is,the sharper and clearer the outline of the image becomes.
  - ER (Enhanced Resolution) : Choosing this mode can increase the sharpness of the picture under the colour mode.
- LANGUAGE : You can select the menu language according to your requirements.
- RETURN : Return to the SPECIAL menu.

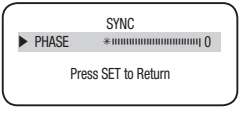
- When the V-REV or H-REV mode is enabled, the text on the screen does not flip.
- If you increase the SHARPNESS level too high, the picture may become distorted or noise may appear.

- **CAM TITLE :** If you enter a title, the title will appear on the monitor.

  1) If the SPECIAL menu screen is displayed, use the Function Setup button so that the arrow indicates 'CAM TITLE'.
  2) Set it to 'ON' by using the Function Setup button.
  3) Press the set button.
  4) Use the Function Setup button to move to a desired letter and select the letter by pressing the set button. Repeat this to enter multiple letters. You can enter up to 15 letters.
  5) Enter a title, move the cursor to 'POS' and press the set button. The entered title appears on the screen. Select the position to display the title on the screen by using the Function Setup button and press the set button. When the position is determined, select 'END' and press the set button to return to the SPECIAL menu.

- When the CAM TITLE menu is 'OFF', no title will be displayed on the monitor screen even if you enter one.
- and Numbers are available in this mode.
- If you move the cursor to CLR and press the set button, all the letters are deleted. To edit a letter, change the cursor to the bottom left arrow and press the set button. Move the cursor over the letter to be edited, move the cursor to the letter to be inserted and then press the set button.

- **SYNC :** In areas where the supply is at 60Hz(NTSC), 50Hz(PAL) frequency, you can synchronize the output phase of multiple cameras using the power synchronization function (Line-Lock) without using a synchronization signal generator.



  - INT : Internal Synchronization Type
  - L/L : Power Synchronization Type, Line-lock

  1) Press the set button.
  2) You can select a desired phase from 0 to 359 when select 'phase'.

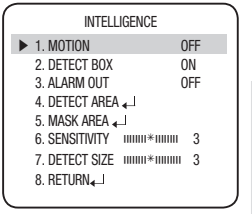
- When using AC power at 60Hz(NTSC), 50Hz(PAL) frequency, you can use the L/L type synchronization.
- When the power is DC 12V, the SYNC menu is fixed to the 'INT' mode.
- If the VPS is set to ON, synchronization is fixed to INT.

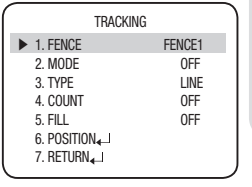
- **INTELLIGENCE :**

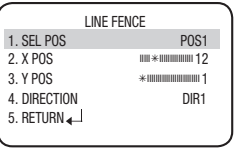
  Commands the camera to motion-detect and trace an object.

  - MOTION : Select motion types to detect.
    - OFF : Not being used.
    - DETECTION : Since the camera detects motion without any additional external sensor, you can monitor activity more efficient.
    - TRACKING : Commands the camera to detect and trace a moving object.
      - FENCE : You can select up to 4 FENCE.
      - MODE : Determines whether to use the fence selected in the FENCE.
      - TYPE : Two types, line and area, of fences are available.
      - COUNT : Displays how many times a subject passes over the fence on the screen.
      - FILL : Fill or remove color from the FENCE.
      - POSITION :Defines the position and detection direction of a line or fenced area.

        1) LINE FENCE
        - SEL POS : Selects a position from POS1,POS2.
        - X POS / Y POS : Adjust the size and position of the selected line fence.
        - DIRECTION
          - DIR1 : Detects objects moving left to right on the fence line.
          - DIR2 : Detects objects moving right to left on the fence line.
          - DIR1/2 : Detects all objects moving crosswise on the fence line.
        - RETURN : Return to the TRACKING menu.

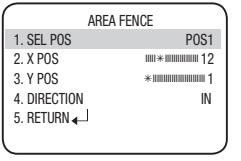






2) AREA FENCE

- SEL POS : Selects a position from POS1 ~ POS4.
- X POS / Y POS : Adjust the size and position of the selected area fence.
- DIRECTION
  - IN : Detects objects entering the fenced area.
  - OUT : Detects objects exiting the fenced area
  - IN/OUT : Detects all objects entering and exiting the fenced area.
- RETURN : Return to the TRACKING menu.

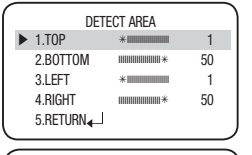


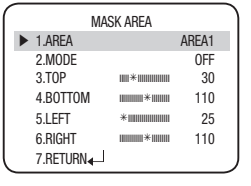
- RETURN: Return to the INTELLIGENCE menu.

• FIXED/MOVED : Detects an object that emerges or disappears from the screen, or stays onscreen without movement.

■ A detection (FIXED/MOVED) error may occur if :
- multiple motions occur continuously in random directions
- a fixed object moves in one position continuously
- a second object screens the first moving object

- DETECT BOX : Outlines an object on the screen in a box when its movement matches a custom Motion Type.
- ALARM OUT : Releases a signal from the MD Output Port on the back of the camera when an object's movement matches a custom Motion Type.
- DETECT AREA : Motion Detection and tracking will only occur within this defined area. (Full Screen is defined as factory default).
- MASK AREA : Specify a detection exception area to mask.**Select a mask area number and specify the size and position.**
  - AREA : You can select up to 4 areas.
  - MODE : Determines whether to use the area selected in the AREA.
  - TOP / BOTTOM / LEFT / RIGHT : Adjust the size and position of the selected area.



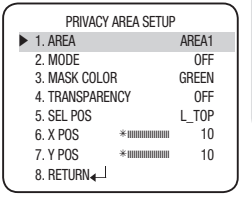


- RETURN : Select this to save the MASK AREA menu settings and return to the INTELLIGENCE menu.

- SENSITIVITY : Set the sensitivity of the motion detection. When you adjust the lower level, the more sensitive.
- DETECT SIZE : Selects an object size to detect on the screen. When you adjust higher levels, the more larger size.
- RETURN : Return to the SPECIAL menu.

- **PRIVACY :**
  Mask an area you want to hide on the screen.

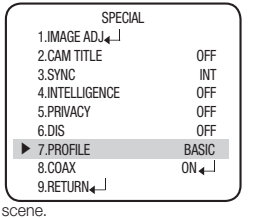
1) When the SPECIAL menu screen is displayed, press the set button so that the arrow indicates 'PRIVACY'.
2) Set up the mode using the Function Setup button.
   - AREA : You can select up to 12 PRIVACY areas.
   - MODE : Determines whether to use the area selected in the AREA.
   - MASK COLOR : Determine area color. You can select Green, Red, Blue, Black, White, Gray.



   - TRANSPARENCY : Adds or removes transparency from the masking area.
   - SEL POS/ XPOS/ YPOS : Adjust the size and position of the selected area.
   - RETURN : Return to the SPECIAL menu.

- **DIS (Digital Image Stabilizer) :** This function mitigates any picture movement due to external factors such as wind.

- As the DIS function uses the digital zoom, the camera's resolution will decrease.
- DIS doesn't operate when background illumination is too low.
- DIS doesn't operate when object pattern is monotonic as like sky or white wall.



- **PROFILE :** Select a desired mode using the Function Setup switch according to the picture display
  - BASIC : The most common environment is set to meet.
  - DAY/NIGHT : It will be set automatically so it optimizes to the day or night conditions, respectively.
  - BACKLIGHT : It will be set automatically so you can distinguish the object from the background in a severe backlighting scene.
  - ITS : It will be set automatically so you can easily check the traffic conditions.
  - INDOOR : It will be set automatically to help you take a picture in a regular indoor lighting condition.
  - USER : Automatically configures the camera to your custom settings.

    1) Select Custom for Simple Setup mode.

    2) Configure the menu options to your custom settings.

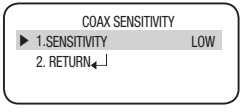
    3) The settings are automatically saved as Custom mode.

    4) Profile user mode don't initialize when menu resets.

  * In the PROFILE menu, you can configure the following camera settings at once.

	BASIC	DAYNIGHT	BACKLIGHT	ITS	INDOOR	USER
SHUTTER	ESC	ESC	ESC	MANUAL(1/250)	A.FLK	-
GAIN	HIGH	HIGH	HIGH	HIGH	HIGH	-
WHITE BAL	ATW	ATW	ATW	OUTDOOR	INDOOR	-
BACKLIGHT	OFF	OFF	USER BLC	OFF	OFF	-
SSNR3	ON	ON	ON	ON	ON	-
DAY/NIGHT	AUTO	AUTO	AUTO	AUTO	AUTO	-

- **COAX** : You can select whether to use COAX communication.
  If you use the COAX communication, you prevent malfunctions by selecting low sensitivity levels against noise.



- **RETURN** : Return to the MAIN SETUP menu.

EXIT

Select a desired EXIT mode using the Function Setup button depending on the camera purpose.

- **SAVE :** Save the current settings and exit the MAIN SETUP menu.
- **NOT SAVE :** Do not save the current settings and exit the MAIN SETUP menu.
- **RESET :** Resets the camera settings to the factory defaults. Communication, Language and Monitor settings are not initialized.

TROUBLESHOOTING

If you have trouble operating your camera, refer to the following table. If the guidelines do not enable you to solve the problem, contact an authorized technician.

PROBLEM	SOLUTION
Nothing appears on the screen.	▶ Check that the power cord and line connection between the camera and monitor are fixed properly. ▶ Check that you have properly connected VIDEO cable to the camera VIDEO output jack.
The image on the screen is dim.	▶ Is the lens stained with dirt? Clean your lens with a soft, clean cloth. ▶ Check the monitor and DVR settings. ▶ If the camera is exposed to very strong light, change the camera position.
The image on the screen is dark.	▶ Adjust the contrast feature of the monitor or DVR. ▶ If you have an intermediate device, set the 75Ω / Hi-z properly.
The camera is not working properly, and the surface of the camera is hot.	▶ Check that you have properly connected the camera to an appropriate power source.
The DAY/NIGHT function does not work.	▶ Check that AGC of EXPOSURE SETUP menu is 'OFF'.
Color is not correct.	▶ Check the setting of WHITE BAL SETUP menu .
The screen flickers continually.	▶ Check that the camera is not pointing at the sun.
When coaxial communication is not available	▶ Make sure that the camera and monitor are installed within the recommended distance. ▶ Use the video amplifier equivalent to coaxitron if the recommended installation distance is exceeded.

SPECIFICATIONS

	SCV-3083N	SCV-3083P
VIDEO		
Imaging Device	1/3" Super HAD CCD II	
Total Pixels	1028(H) x 508(V)	1028(H) x 596(V)
Effective Pixels	976(H) x 494(V)	976(H) x 582(V)
Scanning System	2 : 1 Interlace / Progressive	
Synchronization	Internal / Line Lock	
Frequency	H:15.734KHz / V:59.94Hz	H:15.625KHz / V:50Hz
Horizontal Resolution	Color : ER mode Max 700TV lines(665 TVL ± 5%), B/W : 700TV lines	
Min. Illumination	COLOR : 0.1 Lux (50IRE, @F1.2), 0.0006Lux (SENS-UP, x512) B/W : 0.01Lux (50IRE, @F1.2), 0.00002Lux (SENS-UP, x512)	
S / N Ratio	52dB (AGC off, Weight on)	
Video Output	CVBS : 1.0 Vp-p / 75Ω composite	
Lens Type		
Focal Length(Zoom Ratio)	3 ~ 8.5mm (2.8x)	
Max. Aperture Ratio	F1.2	
Angular Field of View	H: 105.5°(Wide)~37.1°(Tele),V: 57.5°(Wide)~21.0°(Tele)	
Lens Type	DC Auto Iris	
Mount Type	Board Type	
Pan / Tilt /Rotate		
Pan/Tilt/Rotate Range	0°~352° / 0°~73° / 0°~348°	
OPERATIONAL		
On Screen Display	Multi-language Support by Coaxial Cable English, Japanese, Spanish, French, Portuguese, Korean	Multi-language Support by Coaxial Cable English, French, German, Spanish, Italian, Chinese, Russian, Polish, Czech, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese
Camera Title	Off / On (Displayed 15 characters)	

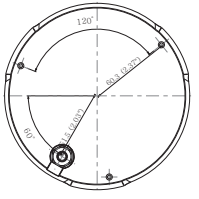
Specifications

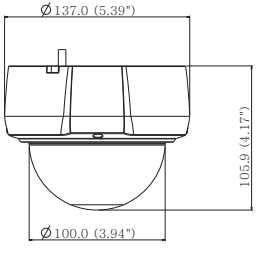
	SCV-3083N	SCV-3083P
Day & Night	Auto (ICR) / EXTERNAL/ Color / B/W	
Backlight Compensation	Off/ USER BLC / HLC / WDR	
Wide Dynamic Range	128x	160x
Dynamic Range (SSDR)	Off / On	
Digital Noise Reduction (SSNR Ⅲ)	Off / On	
Digital Image Stabilization	Off / On	
Privacy Masking	Off / On (12 Programmable zones, Polygonal type)	
Sens-up (Frame Integration)	2x ~ 512x	
Gain Control	Off/ Low / High	
White Balance	ATW / Outdoor / Indoor / Manual / AWC (1,700K° ~ 11,000K°)	
Electronic Shutter Speed	1/60 ~ 1/120,000 sec	1/50 ~ 1/120,000 sec
Digital Zoom	Off / On (1x ~ 16x)	
Flip / Mirror	Off / H-Rev / V-Rev / HV-Rev	
Profile	Basic, Day & Night, Backlight, ITS, Indoor, User	
VPS	Off / On	
Communication	Coaxial Control (SPC-300 Compatible)	
Environmental		
Operating Temperature / Humidity	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	
Electrical		
Input Voltage	AC 24V ± 10% , DC 12V±10%	
Power Consumption	0.35A	
Mechanical		
Dimension	Ø137 x 106mm	
Weight	749g	

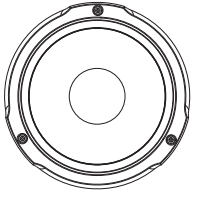
※ This specification can be changed without notice for performance improvement of product.

DIMENSION

Unit : mm(Inches)







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